

GD'S F-16 RETURNS HOME AFTER DAZZLING THOUSANDS IN EUROPE

MULTI-NATIONAL PROGRAM BEGINS

The early June decision by the four-nation consortium of Belgium, Denmark, The Netherlands and Norway to buy the F-16 began what promises to be a landmark in multinational industrial cooperation.

While one of the two General Dynamics-built prototype F-16s sped from nation to nation across Europe performing a series of demonstration flights, industrial leaders were flying from capital to capital in a major effort to make final arrangements for coproducing the aircraft in Europe.

Under the coproduction agreements signed by the governments of the U.S. and the four countries, European industry will produce 10 percent of the value of the USAF F-16s, 40 percent of the up to 348 aircraft to be built for use by the consortium countries and 15 percent of F-16s sold to other countries. The remaining work will be done in the United States by General Dynamics, Pratt & Whitney and their suppliers.

Even in final production the work will be shared between the U.S. and Europe. There will, for example, be three aircraft assembly lines; one in Belgium, one in the Netherlands, and the main line at Fort Worth. Belgium will also provide a final assembly line for the Pratt & Whitney F100 engines to complement the primary line in East Hartford, Conn.

The European decision, announced June 7 as the Paris Air Show was coming to a close, climaxed a 20-month effort by General Dynamics and Pratt & Whitney personnel to win the contract. Teams from the two companies have been in Europe almost constantly since late 1973, meeting with key government leaders, surveying potential subcontractors and discussing production arrangements with European industrialists.

David S. Lewis, GD's chairman; James M. Beggs, executive vice president-aerospace; Otto J. Glasser vice president-international; Richard E. Adams, Fort Worth's general manager; and Lyman C. Josephs, deputy general manager (Continued on page 6)



It's Good To Be Back! Smiles and laughter abound as Lyman Josephs (left) and Dick Adams (right) trade greetings with Neil Anderson on the occasion of the F-16's return to Texas from a triumphant tour of eight European nations. Silhouettes on the F-16's inlet side flag the number and places of the aircraft's flight demonstrations.

A PERSONAL VIEW

F-16: SYMBOL OF NATO UNITY

By Fred Bettinger

GD's new F-16 fighter, following its triumphant appearance at the Paris Air Show, flew a series of brilliant air combat demonstrations for hundreds of thousands of other military and civilian observers in Europe.

Author Fred Bettinger is General Dynamics' director of public affairs, Western Region, and writer-producer of the company's highly-regarded films on the F-16 program. He was a member of the European support team at Paris and accompanied the aircraft through much of the tour. These are his impressions.

As the flight demonstrations progressed through West Germany, Norway, Denmark and Holland, then on to Belgium, Spain and England, it became clear that the F-16 has become much more than an airplane. It has become a symbol of NATO unity, taking with it into the sky the pride and aspirations of the Western Alliance in dart-like bursts of red, white and blue.

Each of the NATO countries that earlier in June had joined together to purchase the F-16 welcomed its arrival in their country as if it were the long-overdue visit of a native son.

Certain scenes repeated themselves over and over again through the tour:

On static display, hundreds, often thousands, of spectators jockeyed for position to get closer to the airplane. They reached for F-16 lithographs that were handed out by the thousands. They asked questions about the F-16's features and performance. The demand for autographs kept the pilots busy for hours . . . at times ground crew members in their blue coveralls would be besieged for autographs as well.

Always there was a steady stream of dignitaries moving up the platform alongside the cockpit for a look at the tilt-back seat, side-stick controller and bubble-top canopy.

Usually an hour or so before takeoff the aircraft would be moved to an isolated area to be prepared for flight. As (Continued on page 2)

NATION-HOPPING SPANS 50 DAYS

After 33 demonstration flights in a rapid-fire, fast-paced tour of eight European countries, the F-16 — with Neil Anderson at the stick — flew home to Fort Worth in triumph early this month.

Just 50 days after its departure, the red, white and blue aircraft swept into view at mid-morning July 9 before a cheering welcoming committee. Anderson, in a mini-version of the aerobatic display which made European headlines, concluded the flight with a low-altitude flaperon "victory roll."

Minutes later, a C-141 Starlifter carrying 19 of the 25-man service and support crew rolled up to the red carpet where families and friends waited. Flanked by American and Texas flags, Fort Worth General Manager Richard Adams and F-16 Program Director Lyman Josephs greeted the returning employees and thanked them for their "spectacular" successes during the seven-week tour.

"You proved yourselves to be first class representatives of the country, General Dynamics, and the F-16 program," Adams said. "Thank you."

W. B. "Zim" Zimmerman, element manager, F-16 flight test, who headed the service and support team, acknowledged Adams' thanks and commented: "We saw an awful lot of Air Force bases in Europe — but not much of Europe!"

Accompanied by the support team of General Dynamics, Air Force and Pratt & Whitney personnel, the F-16 had left Fort Worth on May 21 and arrived at Ramstein Air Base, West Germany the next day. This was the beginning of seven weeks of flight demonstrations, (Continued on page 2)

MINERS CITED: RISKED LIVES TO SAVE CO-WORKER

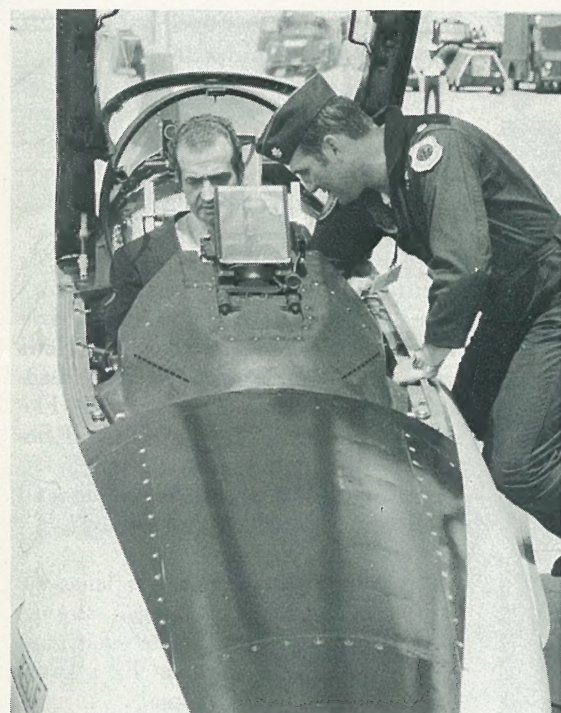
Three employees of Freeman United Coal Mining Co. have been awarded gold medals for heroism after risking their lives to save a fellow employee from being buried alive in an unusual accident last winter.

The three men work at Freeman United's Orient Mine No. 6 in Waltonville, Ill.

Denver C. Braden, 57, plant foreman; Walter S. Chrostoski, 27, and George R. Poole, 60, plant maintenance men, were awarded Medals of Honor for lifesaving by the Joseph A. Holmes Safety Association. The awards were announced in Washington on July 4 by Dr. Thomas V. Valkie, director of the U.S. Bureau of Mines and president of the safety association.

On the day of the accident, January 4, 1975, freezing temperatures had turned the surface of a coal stockpile into a frozen crust. As coal from the bottom of the stockpile was fed into a tunnel, where it was transported by conveyors to a preparation plant, the frozen crust remained firm and a large "hollowed-out" area was created underneath it.

This prevented proper operation of the feeder system, and Edward Chrostoski, 38, also a maintenance man, started driving a bulldozer up the side of the (Continued on page 4)



European Dignitaries. (Left) Juan Carlos, prince of Spain, is briefed by LtCol "Duke" Johnston. (Upper right) James Murphy, GD marketing manager (center) chats with (left to right) Col Josephs Bamps of the Belgian air staff; Col Hugo Cloeckaert, chief of plans and

programs, Belgian Air Force; LtCol Herman Candries, chief of information, Belgian Air Force; and Guy Caudell, president of the Defense Commission in Belgium's second house of parliament. (Lower right) J. Smets, Belgian ambassador to Denmark, examines the F-16 cockpit.

NATION-HOPPING SPANS 50 DAYS . . .

(Continued from page 1)

static displays and a lot of hard work for the pilots and technical crew.

The flight demonstrations were performed by General Dynamics Chief Test Pilot Neil Anderson, and by Air Force test pilots LtCol James G. Rider and LtCol M. B. "Duke" Johnston Jr.

The tour, which followed the plane's appearance at the Paris Air Show (see NATO article, page 1), began June 10 at Ramstein Air Base, West Germany — the staging base for the entire tour. For the benefit of several hundred U. S. Air Force personnel stationed at the base, Col Johnston put the plane through its paces that afternoon. The next three days were spent on maintenance and checkout of the aircraft in preparation for the strenuous tour.

NORWAY

The first stop on the tour of the four NATO consortium countries was Rygge, Norway. Col Rider flew the aircraft from Ramstein the morning of June 14, and later in the day demonstrated it for senior Norwegian government and Air Force officials and the news media.

The aircraft and support crew remained overnight in Rygge, and on Sunday, June 15, with Col Rider again in the cockpit, the F-16 stole the show while a crowd of 60,000 to 70,000, including Crown Prince Harald, watched the day-long air demonstrations.

DENMARK

Col Johnston flew the plane from Norway to Vaerlose, Denmark, the morning of June 16. His afternoon flight demonstration was witnessed by about 2,000 Danish government and Air Force officials, press representatives, and special guests John L. McLucas, Secretary of the U.S. Air Force; Admiral Rodholm, chief of material for Denmark's Defense Command; and MajGen Niels Holst-Sorensen, Chief of the Royal Danish Air Force.

On Tuesday, June 17, Johnston demonstrated the F-16's capability to over 5,000 Danish military and industry representatives. The Danish industry representatives showed special interest in the aircraft since many Danish firms will be subcontractors in the F-16 multinational program.

After the demonstration flights in Denmark, Neil Anderson flew the plane back to Ramstein for an open day, some much needed rest, and routine maintenance on the aircraft.

NETHERLANDS

On Thursday, June 19, Anderson flew to the Royal Netherlands Air Force Base at Volkel. The demonstration there was conducted in perfect weather, with the clear blue skies giving a beautiful background for Anderson's impressive air combat maneuvers.

Top ranking Dutch Air Force officers, including LtGen Johannes H. Knoop, Chief of Staff, government and industry

representatives, Dutch Air Force personnel from Volkel and other bases and more than 10,000 private citizens viewed Anderson's flight.

BELGIUM

Col Rider flew the aircraft from Volkel to the Royal Belgian Air Force Base at Florennes on the morning of June 20. Thousands of school children and base personnel, along with LtGen Albert D. Debeche, Chief of Staff, Belgian Air Force, watched Rider's demonstration flight that afternoon — a rehearsal for the flight scheduled during the Florennes International Air Show the next day.

More than 100,000 spectators poured into the Florennes base for the air show. The F-16 was scheduled to be the last aircraft to be demonstrated, which was

demonstrated the aircraft at Alconbury before an air show crowd estimated at about 60,000. A local newspaper reporting on the show said, "the best single performance at Alconbury must have been the controversial F-16, the USAF's new single-engine, single-seater, multi-purpose fighter flown by Neil Anderson of General Dynamics."

From England, the "traveling road show" returned to Ramstein for a welcome two days of rest and maintenance on the aircraft.

RAMSTEIN & BITBURG

On June 30, Col Johnston flew the rescheduled demonstration flight at Ramstein before the West German Minister of Defense, his staff and air base personnel. Before takeoff heavy rains

strated the aircraft at Alconbury before an air show crowd estimated at about 60,000. A local newspaper reporting on the show said, "the best single performance at Alconbury must have been the controversial F-16, the USAF's new single-engine, single-seater, multi-purpose fighter flown by Neil Anderson of General Dynamics."

According to crew members this was a most successful visit, with Belgian officials expressing obvious pleasure at seeing the aircraft perform. "The friendliness and enthusiasm displayed during the Beauvechain visit was a fitting climax to the European tour," Zimmerman said.

BACK TO THE U.S.

During the tour, it was decided that the aircraft would be demonstrated at two U.S. air bases on its way home; Langley Field, Va., site of USAF's Tactical Air Command Headquarters; and Wright-Patterson AFB, Dayton, Ohio, where the Aeronautical System Division Headquarters and the F-16 System Program Office are located.

On the morning of July 5, with Col Johnston at the controls, the plane departed Ramstein for Langley. Exactly nine hours later, and after six refuelings, the plane landed at the Virginia base. This was the longest flight in the history of the F-16 program.

The remainder of July 5 and July 6 was set aside for rest and to get rid of "jet lag." For only the second time in the tour, the scheduled July 7 demonstration at Langley for Air Force and NASA personnel was adversely affected by bad weather. It was possible to get just a brief flight in before weather totally shut the field down, disappointing hundreds of visitors.

Leaving Langley early the next day, the aircraft and support crew arrived at Wright-Patterson, well in time for the scheduled noon demonstration July 8.

Col William Thurman, F-16 System Program Officer, declared the day a "national holiday" and several thousand base personnel and invited guests took time off to watch the F-16 perform.

After the flight, Col Thurman hosted a picnic at the base's Kitty Hawk Park for the F-16 team members and SPO personnel.

Then — 50 days and many thousand miles of travel since leaving in May — the flight to Fort Worth on July 9 — and home! ! !

This article is a composite of the observations and experiences of the men who accompanied the F-16 flight-by-flight, day-by-day, nation-to-nation and continent-to-continent as told to and reported by Al Spivak and Fred Bettinger and written by Ray Forbes, corporate manager of news and information.

unfortunate, for very bad weather, including heavy rain, forced cancellation of all late-afternoon flights.

The bad weather continued on June 22 and 23, while planners and schedulers in Germany, Spain, Washington, Fort Worth and even St. Louis struggled to reorganize the tour. Demonstrations for Beauvechain in Belgium and Ramstein were eventually rescheduled to July 3 and June 30.

SPAIN

The bad weather cleared suddenly on the morning of June 24, and Col Johnston flew from Florennes to Torrejon Air Base near Madrid just in time to avoid cancellation of an already-delayed demonstration for Crown Prince Juan Carlos, successor to the Spanish throne, and scores of top-ranking Spanish Air Force officers and government officials.

They were hosted by the U.S. Ambassador to Spain, Wells Stabler, and the vice-commander of the Torrejon-headquartered 16th U.S. Air Force, MajGen Edwin E. Robertson.

After the nine-minute demonstration flight, the Crown Prince, who had personally flown his own helicopter to the base, inspected the F-16 at close hand and from inside the cockpit.

The flight at nearby Zaragoza Air Base on the 26th before both U.S. and Spanish Air Force personnel continued the impressive series of demonstrations.

ENGLAND

Leaving Spain, the F-16 and the support crew flew to England for scheduled demonstrations at two Royal Air Force bases, Bentwaters and Alconbury.

Col Rider flew the demonstration at Bentwaters on June 27 for a crowd of nearly 4,000 base personnel.

On the following day, Anderson

drenched the field, leaving pools of water on the runway. The sight of flying water, or "rooster tails" from the wheels as the plane raced through the water, combined with the steam generated during the maximum power takeoff, was really "something to see," W. B. "Zim" Zimmerman reflected later.

The heavy clouds in the area and the dark gray background seemed to "light up" the brightly colored F-16, and the vortices over the wings and fuselage clearly outlined the flight. "It was," he said, "the most impressive flight of the tour."

Without landing, Johnston then flew the short distance to Bitburg Air Base for tests in three different variations of NATO aircraft shelters. The F-16 had no problems with fit or engine operation in the shelters, which are designed to protect aircraft from attack while still allowing engines to be started and warmed for quick takeoff.

BELGIUM AGAIN

July 1 and 2 were spent in Ramstein, preparing the aircraft for return to the U.S. On July 3, Rider flew to Beauvechain, Belgium, for the postponed demon-

F-16: SYMBOL OF NATO UNITY . . .

(Continued from page 1)

takeoff time drew near, the crowd would become silent with anticipation.

Not once were they disappointed because of the airplane. It was ready to go right on the minute at every tour stop.

The F-16 flight demonstrations, which usually included a comparison of takeoff and turn performance with a USAF F-4, never failed to hold the attention of the spectators for the full 10 minutes.

Rarely would the crowds disperse for

the first hour after the aircraft returned to static display. There was always something going on to capture their interest. Television commentators interviewing the pilots, LtCol M. B. Johnston, LtCol James Rider and Neil Anderson; dignitaries meeting U.S. Air Force and General Dynamics representatives; milling groups of reporters and photographers; and always, the star of the show, the F-16, inspected and admired from all angles.

So it was that through the course of the day the F-16 would take on a new identity. It would develop a rapport of its own with its new buyers. In Norway, in Denmark, in Holland, in Belgium . . . the F-16 became *their* airplane. And after seeing it perform they seemed more than pleased with *their* decisions.

In each of the countries, the F-16's flight performance and pilot interviews were front-page stories. Typical headlines translate as: "F-16 Star at Florennes Air Show" . . . "F-16 Defies Gravity" . . . "Air Force Praises F-16" . . . "Starfighter Successor Rapid and Silent" . . . "New Air Force Baby" . . . "An Acrobat."

It was a trip to remember: language barriers, currency exchange, strange food, living out of a suitcase — but most of all for a job well done by a great team with a superb airplane!

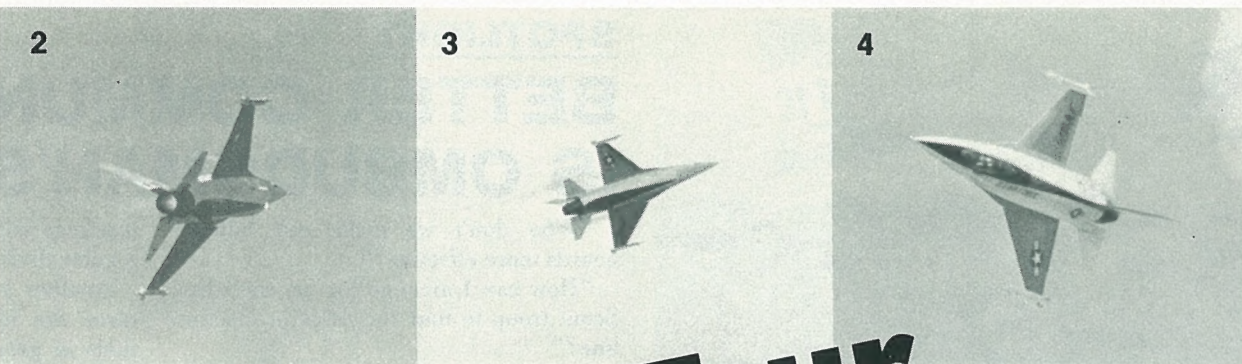
Fifty-two flights, forty-nine with no discrepancies. Eight countries visited — thirty-three demonstrations. Lots of laughs and lots of hard work, and a tremendous feeling of satisfaction!



Denmark and The Netherlands. (Left photo) Secretary of the Air Force John L. McLucas (central left) and Col Thurman, F-16 System Program Director, meet in Vaerlose, Denmark, while Assistant Air Force Secretary Frank Schrontz looks away. (Right photo) Neil Anderson (left) discusses F-16 with Col Caspera Baas, Volkel base commander in The Netherlands; Col Thurman; Maj Jan Wilbrink, commanding officer of a Dutch fighter squadron; and LtCol James Rider.

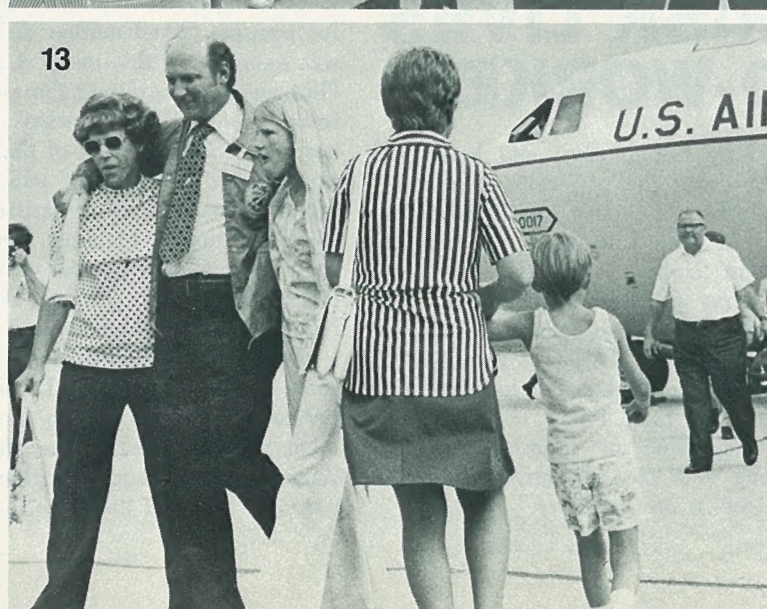
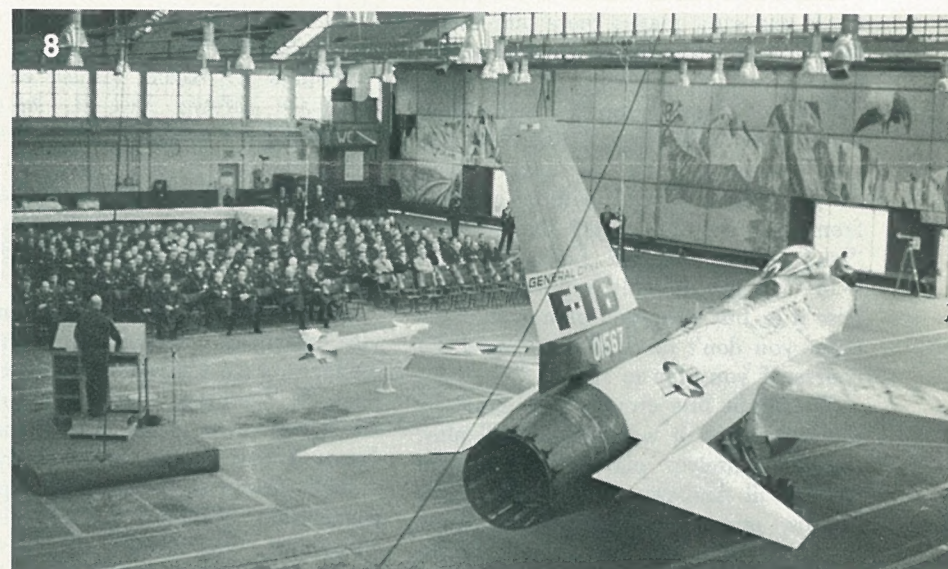


European Tour



Photos (1-4) The F-16 cleaves the skies over Europe in spectacular air demonstrations. (5) GD chairman David S. Lewis beams at news of NATO consortium buy. (6) F-16

towed from static display prior to flight at Rygge, Norway. (7) F-16 taxis past the C-130 which accompanied it on tour.



(8) In the hangar at Beauvechain LtGen Albert D. Debeche, chief of staff of Belgian Air Force, explains features of the F-16. (9) Ray Wadsworth and John Diehl hold an inlet cover decorated with souvenirs of allied air forces they visited. (10) A "friend" welcomes Col Johnston at Langley. (11) Zim Zimmerman; H. B. "Buzz" Henderson, manager of GD's Langley office; and Ray Wadsworth at an F-16 welcome back party at Langley. (12) Col Johnston; LtCol Larry Smulczewski, F-16 test manager; Mrs. Stewart and Gen James Stewart at Wright-Patterson. (13) Tap Logue gets royal welcome on return to Fort Worth as team member Hasckel Runge (right) hurries to find his family.



They Made It Go. Photo shows several members of the F-16 support team which accompanied the aircraft through its eight-nation tour of Europe. Kneeling (left to right) Raymond Wadsworth, Howard Langham, LtCol Johnston, Joseph Tulino (Pratt & Whitney), Haskel Runge and Wayne Richardson. Standing (left to right) Ronald Truax (Pratt & Whitney), Clayton Byrom, Robert Williams, William Koonce, Vernon Anderson, John Diehl, Bill Plumlee, Tapley Logue, Kary Colthrap and Anson James.

FIGHTER'S TOUR STORY IS TALE OF TEAMWORK

The story behind the story of the F-16's successful nation-hopping tour through Europe is in the people who lived daily with the aircraft.

There were advance men and follow-up men, men in coveralls and men in uniforms, suits and ties, specialists and generalists, engineers, technicians, pilots, logistics men and safety men, photographers and mechanics, men with titles and men known as "the crew." Air Force, GD, Pratt & Whitney; all played a role and some played more than one—the additional role being learned on the spot.

Tapley "Tap" Logue, the support team's own Will Rogers, was called on from time to time to keep things in perspective. Faced with a question from the crowd around the aircraft: "Isn't the competition faster than the F-16?" Logue quickly replied, "I suppose it is, but when you plan to stay and fight, you don't need all that speed. Of course, if you plan to run . . ."

The flight line crew, which stood by the F-16 when it was on static display, found themselves playing the role of Good Will Ambassadors; signing autographs, answering hundreds of questions, and handing out pictures of the aircraft.

W. B. Zimmerman, GD's F-16 flight test element manager, who was in charge of the team, said, "These are the guys who really made this tour go."

Capt Mike Greece, the F-16's Air Force chief information officer agrees. "I was sure that the support team knew the F-16, after all, they've been with it from the beginning. What surprised me was the easy poise of those men when they were doing public relations for the F-16 in addition to their specialties. It was as though they had been handling crowds in a foreign land for years. Excellent, that's the word for the team."

The dedicated men named below worked together long hours struggling with strange languages, strange curren-

cies and strange customs, to make the European demonstrations of the F-16 a 100 percent success:

AIR FORCE

LtCol James Rider, director, F-16 joint test force; LtCol M. B. Johnston, deputy director, F-16 joint test force; LtCol Larry Smulczynski, test manager, F-16; Capt Michael Greece, F-16 chief information officer; and TSgt Rufus Grady and Sgt Robert Latham, support team crew chiefs.

GENERAL DYNAMICS

William T. Allen, project engineer, aerospace safety; Neil R. Anderson, chief company test pilot; Vernon K. Anderson, flight test control engineer; Fred J. Bettinger, director of public affairs, western region; Gerald K. Burns, flight test photographer; and R. L. Harris, logistician.

Also, Clayton L. Byrom, field and service mechanic; Frank W. Campbell, manager, F-16 international marketing; Kary S. Colthrap, mechanic; John A. Diehl, supervisor of field operations; and James R. Hix, flight test photographer.

Also, Anson J. James, supply project supervisor; William E. Koonce, test equipment electrician; Howard H. Langham, logistician; Tapley G. Logue, logistics engineer; William R. Newton, senior aerosystems engineer; and Thomas J. Osborne senior aerosystems engineer.

Also, Bill R. Plumlee, superintendent of field operations; Wayne O. Richardson, aircraft assembler; Tim J. Roels, marketing representative; Haskel A. Runge, mechanic; Alvin A. Spivak, news and information director, Washington office; Raymond E. Wadsworth, logistician; Robert R. Williams, electrical inspector; and W. B. Zimmerman, element manager, F-16 flight test.

PRATT & WHITNEY

Ronald A. Truax, senior field project engineer; and Joseph Tulino, senior project engineer.

COAL MINERS RISK LIVES TO RESCUE CO-WORKER

(Continued from page 1)

stockpile in an attempt to get the coal moving again. Without warning, the bulldozer suddenly plunged through the frozen crust into the hollowed-out area burying Chrostoski under fine, loose coal. Braden saw what had happened, and Walter Chrostoski and Poole responded to his shouts for help.

The three men climbed up the pile, over the frozen crust and down into the pit where Chrostoski was buried. Under the constant threat of being

buried by falling crust and loose coal sliding down the pit walls, they freed Chrostoski and carried him to safety.

Lucian A. Lincoln, president of Freeman United said, "I would like to add my personal commendation for the swift unselfish action taken by these three men. This is a reflection of not only their personal heroism and concern for their fellow employees, but also the value of their professional training and keen awareness of safety practices in our industry."

SPOTLIGHT

BETTER COMMUNICATION IS OMBUDSMAN'S GOAL

"Why don't we make our bulletin boards more effective?"

"How can I arrange for my son's Boy Scout troop to tour the Atlas production line?"

"My daughter is a semi-finalist in the National Merit Scholarship program. Does this automatically qualify her for a Convair scholarship?"

"I'm going to retire soon. Do I have to pay income tax on my retirement pay?"

These questions and complaints were written just for this article, but they could have been asked by any Convair employee, and if they were, who could answer? The Ombudsman!

An ombudsman is someone available within an organization to receive complaints and suggestions and to find equitable solutions to the complaints and get the suggestions to the right people.

Since January 1975 Tom Leech has been an ombudsman at Convair. This is one of several tasks assigned to Leech in his larger role as the internal communication coordinator. Establishing the coordinator's office was one of the recommendations of an Internal Communication Team which Grant Hansen, Convair general manager, had asked to analyze the division's internal communication needs.

Leech, a member of the team and 15-year Convair engineer, reports directly to Hansen and, in announcing Leech's assignment, Hansen said the purpose is "aimed directly at improving both upward and downward communication in the division. He is to be accessible to anyone in the division who feels a need to get or send information and has not been able to do this within the system . . ."



Tom Leech

This basically describes the ombudsman role in which Convair employees, by telephone, a personal visit or a note, can transmit their suggestions, laments, or questions to Leech. These messages can be confidential if the employee so desires.

Leech's first responsibility is to find out why the problem couldn't be resolved through the employee's immediate supervisor or directly with the group which has the responsibility for solving the problem. According to Leech, many of the callers, some of whom are supervisors, simply don't know where to call for answers. "And neither did I until I was assigned to this task," Leech adds, "but we are improving the way we inform people who-does-what around here." Leech said many of these queries are quickly handled by telling people where to call. Often a satisfactory response is quickly obtained along with a remark from the person who resolved the problem, "No problem doing that. Nobody ever asked me about it before."

Such easy solutions don't exist for some of the suggestions, Leech said. "I try to work directly with the management people closest to the answer, but some situations require higher level attention." Some of these are discussed in

meetings with Hansen or raised in the regular division staff meetings.

Another way in which employee concerns are identified is through discussions in group or staff meetings. Leech has met with about 60 such groups. Sometimes these meetings are held without supervisors being present. This allows the employees to more freely respond, though Leech points out this depends on the rapport between employees and their supervision. "If a good rapport already exists," he said, "it makes little difference if the supervisor is present or not. One of the purposes of these meetings is to identify where communication barriers exist and help both supervisors and employees overcome them."

Another area of Leech's responsibility is to work toward implementing other Internal Communication Team recommendations, such as regular group meetings. He is also responsible for the policy for the division's Weekly Log, which provides a way to disseminate "how or where to" information as well as answers to specific questions.

Improving internal communication at Convair is far from a one-person role, Leech said. "Every employee here is involved in the communication process. People have responded well to our efforts and I feel we've definitely made progress."

CANADAIR WILL HELP DEVELOP TRANSIT STUDY

Canadair has been selected as the development contractor for an intermediate capacity transit system being produced by Canada's Urban Transportation Development Corporation (UTDC).

The transit system will be designed to carry 6,000 to 20,000 passengers per hour in each direction, according to Harry Whiteman, Canadair's chief of engineering.

"This system is intended to fill the gap between bus services and subways within major cities. Our present thinking is that the major portion of the transit system will be elevated with only a minor portion being at ground level," Whiteman said.

In announcing the award, Kirk W. Foley, president of UTDC, said, "Canadair was chosen for the task because of prior experience in systems engineering and systems management on a number of sophisticated transportation projects."

Canadair will be responsible to the UTDC, a government-funded corporation which is prime contractor for development of this system for application in Canadian and export markets.

A consortium of industrial and transportation firms will be coordinated during the early definition stages of the development program by Canadair.

During phases one and two of the five-phase program, approximately 50 Canadian engineering and other specialists will be involved including a staff from UTDC, subcontractors and Canadair.

SAVINGS UNIT VALUES GIVEN

The Savings and Stock Plan unit values in dollars for the month of June are shown below.

Salaried:	
Government bonds	\$ 1.672
Diversified portfolio	\$ 1.295
General Dynamics stock	\$52.75
Hourly:	
Government bonds	\$ 1.670
Diversified portfolio	\$ 1.326



Off We Go. Air Force Capt George L. Tucker Jr. and Capt Frank A. Vouri, flanked by Jack Croft and Grant Hansen (right) display EWI diplomas on completion of 10-month industrial management course at Convair Division.

U.S. AIR FORCE OFFICERS COMPLETE EWI COURSE

Two Air Force officers assigned to Convair Division have completed an industrial management course in the Air Force Institute of Technology's Education With Industry (EWI) program.

Jack Croft, Convair chief of educational services, said Capt George L. Tucker Jr. and Capt Frank A. Vouri recently completed the final phase of their EWI work in the material, estimating and contracts functions as well as in the cruise missile program. The pair began the 10-month training program last September, with an introduction to the organizational structure and product lines of General Dynamics.

Grant Hansen, Convair general manager, presented EWI completion certificates to each of the officers. Hansen, in turn, accepted a citation from the Air Force Institute of Technology "in appre-

ciation to General Dynamics for the valuable contributions extended to the U.S. Air Force EWI Program."

Croft said this marks the 18th consecutive year that Convair has participated in EWI. During this period, more than 40 career officers have participated in the program.

Following the tour at Convair, Capt Tucker was reassigned to Hill Air Force Base, Ogden, Utah, in systems procurement and Capt Vouri will join the Air Force Plant Representative's staff at Hughes Aircraft Co. in Culver City, Calif.

BOOKLET OFFERS HINTS TO EARN EXTRA DOLLARS

Convair's Suggestion Program, an employee program which can add extra cash to the pocketbook and at the same time save the company money, is described in a new booklet which has been distributed to all employees.

Titled, "Ideas are Money in the Bank," the booklet details the importance of the Suggestion Program, how it works and what personal rewards and recognition may be earned for worthwhile cost improvement ideas.

H. P. "Howie" Williams, Convair administrator of cost reduction and value control, said the booklet has already had an impact on the suggestion system. "We usually average about 50 suggestions per week, but that figure has more than doubled since we began distributing the booklet."

Williams points out that over the past five years, the cost reduction effort has saved Convair more than \$3.5 million. During that period, suggesters received nearly \$400,000 in awards.

Good ideas can earn the suggester a minimum of \$15 to a maximum of \$5,000, according to Williams, and can earn up to \$10,000 when adopted at other General Dynamics divisions.

However, all recognition isn't monetary. Each month the individual submitting the greatest number of ideas is singled out as the "Suggester of the Month." His reward is a special parking space for a month near the plant entrance he normally uses. Marilyn H. Bosworth, secretary in quality assurance-procurement quality assurance, and Leo H. Wilson, leadman in DC-10 assembly, were cowinners and enjoyed the parking privilege during June.

As an added incentive, Convair is awarding a pocket-size metric/inch conversion scale to each employee submitting two or more suggestions during the remainder of the year.

GREECE BUYS THREE OF CANADAIR'S CL-215s

The government of Greece recently announced the purchase of three additional Canadair CL-215 multipurpose amphibious aircraft to join the two already operated in that country by the Hellenic Air Force. All aircraft are scheduled to operate in the forest protection role.

Greece received its first CL-215 aircraft in December 1973 and its second in June 1974. The aircraft's outstanding success in fire fighting operations in 1974 led the Greek authorities to increase the size of the CL-215 fleet.

Five aircraft will be operating in Greece by the end of this summer. The aircraft, the first in the world to be designed specifically to fight forest fires, is in its seventh year of operation. It is a most effective fire fighting airplane and a versatile patrol, spray and emergency transport aircraft.

F-16 MAJOR SUBCONTRACTS AWARDED

Twenty-four major subcontractors — ranging in location from Oxnard, California to Rochester, Kent, England and from Texas to Vermont — have been selected to date for the F-16 full-scale development program.

It has been estimated that the F-16 program will ultimately provide jobs for as many as 65,000 people and work for several hundred suppliers and subcontractors throughout the U.S. who will furnish the systems, subsystems, parts and materials for manufacture of the aircraft.

As the program progresses through the full-scale development phase to the production phase, the number of jobs and dollars involved in the program will increase — reaching maximum levels in four to five years.

Norman E. Day, director of material for the Fort Worth Division, in commenting on the procurement program, said, "The selection of subcontractors for the F-16 program has been so competitive that we have had to develop and institute extraordinary procedures and disciplines to make sure that each company had a fair opportunity to compete."

"While the bulk of our major subcontracts have been awarded, a much more complex procurement job has just begun," Day said. "This job covers the selecting and placing of subcontracts with European firms which will be involved in the F-16 multinational program. This presents us with a real challenge, for we'll be dealing with companies in all four of the NATO countries who have purchased the airplane, and who will be furnishing equipment and systems for manufacture of the airplane simultaneously on three production lines."

Listed below are the major subcontractors who have so far been awarded F-16 contracts:

Abex Corp., Oxnard, Calif., hydraulic pump; Goodyear Tire and Rubber Co., Akron, Ohio, wheels and brakes; Singer-Kearfott Division, Little Falls, N.J., inertial navigation system; National Waterlift, Kalamazoo, Mich., servo actuators; Stencel Aero Engineering, Asheville, N. C., seat; Westinghouse Electric Corp., Lima, Ohio, 40 KVA generator/transformers; Magnavox Co., Fort Wayne, Ind., channel frequency indicator.

Also Menasco Manufacturing Co.,

Fort Worth, Tex., main and nose landing gears; Delco Electronics, Goleta, Calif., fire control computer; Marconi Elliott, Rochester, Kent, England, head-up display; TRW, Cleveland, Ohio, fuel pump; AiResearch Manufacturing Co., Torrance, Calif., leading edge flap drive system and emergency power unit; B. F. Goodrich Co., Akron, Ohio, tires; XAR, City of Industry, Calif., check valve and aerial refueling receptacle.

Also Brunswick Corp., Marion, Va., nose radome; Sunstrand Aviation, Rockford, Ill., starter gear box and constant

speed drive; Lear Siegler, Cleveland, Ohio, 5 KVA generator; Texstar Plastics, Grand Prairie, Tex., canopy transparencies; Bendix Corp., North Hollywood, Calif., leading edge servo valve; General Electric Co., Burlington, Vt., ammunition handling system; Simmonds Precision Products, Vergennes, Vt., fuel quantity measuring system; Sperry Rand Corp., Phoenix, Ariz., central air data computer; Talley Corp., Newbury Park, Calif., turbine pump; Task Corp., Anaheim, Calif., crossfeed valve.



Scholars. Convair Management Association Scholarship Manager Jack Miller (right) presented certificates and \$500 grants to four graduating seniors last month. Recipients were (left to right) Barbara R. Greer, William J. DeHope, Bruce A. Gurney III and David M. Ibarra.

MANAGEMENT CLUB AWARDS FOUR SCHOLARSHIP GRANTS

Four graduating high school seniors — three sons and a daughter of Convair Division employees — have been awarded \$500 Convair Management Association scholarship grants.

They are David M. Ibarra, son of Jose M. Ibarra, accounting supervisor; Bruce A. Gurney III, son of Bruce A. Gurney Jr., senior design engineer; William J. DeHope, son of James DeHope, foreman; and Barbara R. Greer, daughter of Dick L. Greer, engineer.

Jack Miller, manager of the Management Association scholarship committee, presented the checks June 18 at a banquet in the Town and Country Convention Center attended by winners and parents, judges and members of the association's scholarship committee.

Ibarra, 17, was a varsity letterman in gymnastics at Madison High School. He was active in church youth activities and won several awards in Junior Achievement. He will major in psychology at the University of California at San Diego.

Gurney, also 17, graduated from Crawford High School where he was active in student government while serving as Associated Student Body president. He was a member of the mathematics and physics teams. He plans to attend Harvey Mudd College in Clare-

mont, Calif., where he will major in physics.

Eighteen-year-old DeHope ranked first in his Helix High School graduating class and was Valedictorian. He will major in mechanical engineering at San Diego State.

Miss Greer, 17, another Helix High graduate, is a life member of the California Scholastic Federation and is listed in *Who's Who Among American High School Students*. She was a member of the Helix orchestra and plans to pursue a career in music education while attending San Diego State.

Miller said each of the scholarship award winners, in addition to having an outstanding scholastic record, has also taken part in a number of extracurricular activities.

Members of the Management Association Scholarship Committee (Miller, Bob Dunn, Larry Pierce and Doris Bennett) evaluated approximately 60 applicants. Eight finalists were selected and interviewed by a panel of judges composed of Rita Campbell, Pacific Telephone; Glen Elliott, Pacific Southwest Airlines; Lee Rollins, San Diego Gas and Electric; Norm Rutherford and Phil Waier, Convair; and Robert Shannon, San Diego County Department of Education.

GD World

Published by General Dynamics Corporation, Pierre Laclede Center, St. Louis, Mo. 63105

Dewey Maltese — corporate manager of internal communication
Fred Bettinger and Jack Isabel — contributing editors, Aerospace Edition

Around the World...

...in GD

At Canadair: Frank F. Reynolds, supervisor of engineering administration, achieved 47 years of uninterrupted service with the company. Reynolds, now 61, joined the company — then the Aircraft Division of Canadian Vickers, Ltd. — when he was 15 years old.

At CHQ: Dr. John Redmond will go to Peking, China, as a member of a U.S. delegation of the Electronic Industries Association. Representing Stromberg-Carlson products, Redmond will present a paper titled "Small Central Exchanges for Rural Areas."

At Convair: Ivy Baughman and Lois Tenwald, sponsored by the Centaur Program Office in recognition for their contributions to the Atlas-Centaur program, were sent to Florida to see the Intelsat IV launch. . . . Curt Johnson, manager at Vandenberg AFB, received the NMA's Gold Knight of Management award. . . . Joe Mullen and John Richardson were elected to office in the Society of Allied Weight Engineers. Mullen was elected a Fellow and Richardson vice president - publications for the *International SAWE Journal*.

At DSS: Ira Harrington rejoined as manager of quality assurance at Central Data Service Center. . . . J. Harold McBeth joined as manager - technical/scientific services. . . . J. J. Quint, management science specialist at Western Data Service Center, received his Master of Science degree during June commencement exercises at West Coast University.

At EB: Donald Rowley and Edward Fenton received 40-year service awards. . . . Lester Arnold Jr. and Harold Hansen received 35-year service awards. . . . Stanley Barber, Fredrick Morris and Russell Musante received 30-year service awards. . . . Adelaid McNichol, Donald Rossi and Alfred Delaporta received 25-year service awards. . . . James J. Allen, F. X. Archambault, Ruth Cluny, Ernest J. Baird, Thomas M. Nisbet, David G. Bourne and George Meitzler received 20-year service awards. . . . Harold Morgan and Everest Brustolon reached 35-year service milestones. . . . Charles Flynn, Wolfgang Schmidt and Elliott Johnson completed 25 years of service. . . . Completing 20 years of service were Frank Cory, George Rowland, Gordon Bakken, Peter Lyall and Thomas Keel.

At Electronics: Three officers arrived from the U.S. Army Training & Doctrine Command to participate in the operation of the Standoff Target Acquisition System. They are Capt Mike McMahan and CWO Bob Miller from the Artillery School and Capt Jim Sewell from the Intelligence School. . . . Burt Wolf transferred to CHQ as manager of financial plans & reports.

At Fort Worth: Three program managers have been named for Air Force Flight Dynamics Laboratory contracts. Jack Cawthon will manage the Advanced Inlet/Airframe Integration Concept contract, John Watson will manage the Integrated Automatic Flight and Fire Control Systems contract, and the Advanced Technology Wing Configuration Design and Analysis contract will be managed by Richard Frost. . . . Gary Goodman, Bob B. Brown, Charles Bryan and Marvin Grant received a plaque and a \$500 savings bond for their outstanding achievements in cost reduction and quality.

At MSC: Karl Holzl was promoted to assistant general sales manager - building sales.

At Pomona: Richard Hyman, Jack Esslinger and Joseph Moad received 25-year service pins. . . . Lou Guelnder Jr., Mac Fisher and Sandy McMaster received 35-year service pins. . . . Russell McGonnell, Alvoy Flora, Rudolph Doege and Vera Tierney retired. . . . Randall Clayton was promoted to project engineer. . . . David Iguchi and John Serpa were promoted to manufacturing development specialists. . . . Frank Decoteau was promoted to chief, systems & procedures. . . . Joseph Wilson III was promoted to project administrator. . . . Robert Clauer was promoted to group engineer. . . . Charles Johnson was promoted to electronics engineer, senior. . . . Chuck Reno was promoted to assistant project engineer. . . . Melvin Smith was promoted to chief, operations data control. . . . Joseph Wilberding was promoted to program coordinator. . . . Vincenzo Scotti and Arthur Harrigan joined as design specialists. . . . Ronald Tuley assumed duties as assistant program director (Stinger).

At Quincy: Robert Rosenberg was installed as president of the Quincy Management Association. . . . Members of the Quincy Long Service Club enjoyed an open house and plant tour from 10:00 a.m. to 2:00 p.m. on June 21. Jack Flaherty, Quincy general superintendent and president of the club, hosted the returning shipyard veterans, some of whom had over 50 years service in shipbuilding. Local 5 of the Industrial Union of Marine and Shipbuilding Workers of America provided bus service as their part of the event.

At S-C: Jack Finnerty was promoted to plant manager - Camden. . . . C. J. "Bud" Jameson, plant manager at Charlottesville, is president-elect of the Charlottesville/Albemarle Area Chamber of Commerce. . . . Jack Shirman became director, technology engineering. . . . Fredrick Glasbrenner assumed duties as manager, engineering design automation. . . . Paul Kavanaugh was appointed manager, electronic technology. . . . Edward Gegner became manager, mechanical technology. . . . Frank Niertit assumed duties as manager, integrated circuit process & technology development. . . . Walter Muller was appointed director, engineering integration & services. . . . Elmer Barringer transferred to Convair as senior project engineer. . . . R. L. Brorein completed 20 years of service. . . . S. L. Soni will present a paper on the ESC-3 electronic switching center at the 1975 International Electronic Conference in Toronto, Canada. . . . James Sterlance has been elected to the Board of Directors of the Rochester Engineering Society. . . . B. J. "Bernie" Demski, industrial relations manager, Charlottesville, was appointed by U.S. Congressman J. Kenneth Robinson to serve on the 7th District Economic Advisory Committee.

LANDMARK MULTI-NATION COPRODUCTION BEGINS...

(Continued from page 1)

ager and F-16 program director, made numerous trips in support of the General Dynamics effort.

Harry J. Gray, chairman of United Technologies, Inc.; Bruce N. Torell, president of Pratt & Whitney; Edmund V. Marshall, vice president and general manager of Pratt & Whitney's Florida research and development center; and Lawrence D. Clarkson, Pratt & Whitney's program manager for the F-16's F100 engine, played important roles in familiarizing leaders of Europe with the superior characteristics of the F-16 and its F100 engine.

Leading the U.S. team in negotiating what was actually a government-to-government agreement were Robert F. Ellsworth, assistant secretary of defense for international security affairs; Frank Shrontz, assistant secretary of the Air Force for installations and logistics; Walter B. LaBerge, assistant secretary of the Air Force for research and development; LtGen Howard Fish, director of the Defense Security Assistance Agency; LtGen James Stewart, USAF, commanding general of the Air Force's Aeronautical Systems Division; and Col William Thurman, USAF, director of the F-16 System Program Office.

GD TEAM

Among the many General Dynamics employees who were eating, sleeping and dreaming the program throughout the critical months and who were generally credited with having made major contributions to its success were Jack D. Phelan, vice president, Europe, and James J. Murphy, marketing manager, who took up residence in Brussels more than 16 months ago; Norman Stranberg, director, F-16 marketing, Fort Worth, who made eight trips in Europe in 15 months; Robert Kahn, director of F-16 coproduction office in Fort Worth; Frank Campbell, manager-international marketing, also of Fort Worth; William Price, Fort Worth's representative to the Scandinavian countries; and Alvin A. Spivak, news and information director, Washington office, who went to Europe for two weeks and stayed four months.

Even the Quincy shipyard aided in the consortium's decision to buy the F-16. Quincy's president, P. Takis Veliotis, visited the Cockerill shipyard in Belgium and the Rhine-Schelde-Verolme shipyard in The Netherlands early in April 1975 to initiate a series of meetings on both sides of the Atlantic to discuss potential areas of cooperation in the construction of LNG tankers for the European market.

In his White Paper presented to the Belgian Parliament, Minister of Defense Paul van den Boeynants referred to those discussions as a positive action by GD for multinational cooperation.

COMPLEX PROGRAM

Now that the F-16 coproduction decision has been made, management of the complex program will require close working relationships among government, military and industrial officials of all five countries. Among the arrangements:

- General Dynamics and Pratt & Whitney have already established European offices for the coproduction program. GD's office is in Brussels and is headed by Blaine Scheideman, vice president and deputy F-16 program director. Scheideman will split his time between Europe and Fort Worth.

- The United States and the consortium countries will form a System Program Office (SPO) in Europe, staffed with military personnel from the five countries. Each country will also have representatives stationed at the F-16 SPO, Wright-Patterson Air Force Base, Ohio.

- European pilots are expected to

participate in the flight test program as members of a joint test team at Edwards Air Force Base, Calif.

- It is planned that major European coproducers will have representatives in residence in Fort Worth to work closely with company personnel in the production of the development aircraft which the division will build and test over the next three years. These aircraft are being built under the contract awarded by the U.S. Air Force in January 1975.

WORK AGREEMENTS

The four consortium nations have agreed that the work distribution for the production of the aircraft will be in about the same proportion as the value of the aircraft purchased by each nation. The breakdown of aircraft each country plans to buy is:

Belgium	116
Denmark	58
The Netherlands	102
Norway	72

Total cost of the 348 consortium aircraft is expected to be about \$2 billion in 1975 dollars.

Most of the work in Denmark and Norway will be on structural components, avionics and mechanical equipment, while Belgium and The Netherlands will produce major fuselage, wing and control components, in addition to final assembly of the aircraft. U.S. subcontractors will work closely with their European counterparts to ensure compatibility of components and the transfer of advanced technology.

According to the agreement between the U.S. government and the consortium governments, "advanced technology cooperation and transfer is an important feature of this program. All elements of the F-16 aircraft, with a few exceptions, will be released to the European participating governments."

About 65,000 jobs will be generated in the U.S. for work on the F-16 program, with an additional 20,000 to 25,000 in Europe. Employment at the Fort Worth Division is expected to grow to about 12,000 by the late 1970s.

Delivery of the first of the initial 650 production aircraft to be ordered by the U.S. Air Force is planned for delivery in 1978. The first of the 348 European aircraft will be delivered shortly thereafter.



Buoy Dedicated. On hand in Seattle, Wash., July 2, for dedication of Electronics Division environmental ocean buoy were (left to right) Dr. John Townsend Jr., associate director of National Oceanic and Atmospheric Administration; RAdm Herbert L. Lippold, director of the Pacific Marine Center; and Congressman Joel Pritchard. Over the next five years, NOAA plans to deploy approximately 30 such buoys to improve weather forecasting and storm warning capability.